ATON Technology in reach.™

Storm Series

LCR Theater Speakers

A83C/A53W

ATON STORM SERIES

www.atonhome.com

1. Introduction

Thank you for choosing ATON Storm Series LCR Theater Speakers. Available in ceiling-mount and in-wall configurations, each model was voiced in our sound labs by musicians with years of critical listening experience and crafted for your listening enjoyment. To see the complete line of ATON products, visit us online at ***www.atonhome.com***.

Storm Series LCR Theater Speakers are timbre-matched and designed to work together in any combination of left, right, center or rear surround in order to create the perfect home theater environment regardless of a room's size or shape.

Storm Series LCR Theater Speakers also make excellent whole-house audio solutions that are ideal for areas with defined listening areas. Designed to blend with any home environment, both models feature flat, unobtrusive profiles, paintable mesh grilles and sleek perimeter trims.

All Storm Series speakers are designed for indoor and outdoor use and carry a limited lifetime warranty. Pre-construction brackets are available for easy, reliable installation.

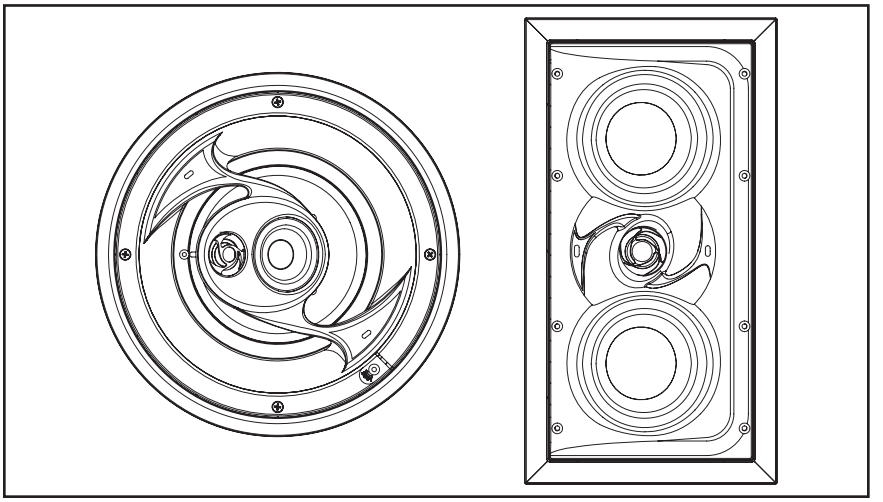

Figure 1.1: A83C & A53W Front View

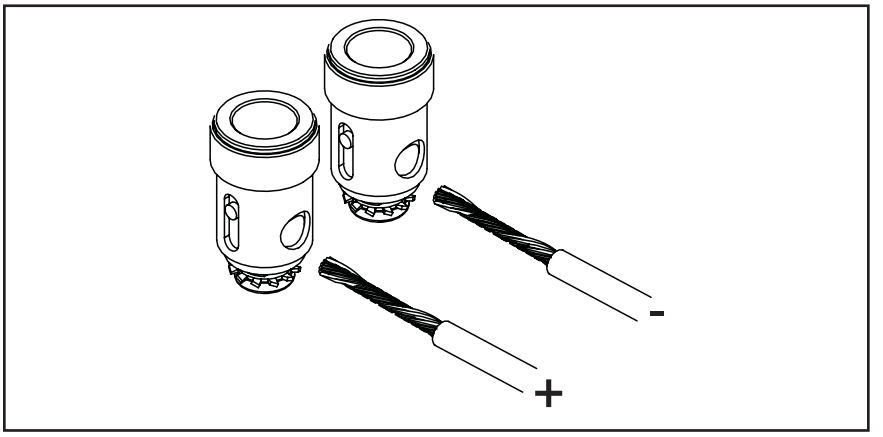

Figure 1.2: Speaker Terminals

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2. System Design/Applications

ATON LCR Theater Speakers are designed primarily to be installed in drywall ceilings and/or walls, but it is possible to install them in other materials. Prior to installation, it is essential to determine the type of application, and, therefore, the placement of the speakers. There are two typical applications that ATON LCR Theater Speakers will be used for: **Home Theater** and **Stereo/ Critical Listening**.

Home Theater

ATON LCR Theater Speakers provide unobtrusive, high-quality home theater sound when installed in the correct locations. It is critical to identify the primary listening position before installation! See ***Figure 2.1*** for a system design utilizing *all* A83C ceiling speakers, ***Figure 2.2*** for a system design using *all* A53W in-wall speakers and ***Figure 2.3*** for a system design utilizing ceiling *and* in-wall speakers.

Note: Digital Surround Sound (5.1, 6.1, DTS, etc.) requires the use of a subwoofer for Low-Frequency Effects (LFE). ATON Recommends the use of the A82SW Passive In-Wall Subwoofer (requires separate amplification) for any home theater application utilizing Storm Series LCR Theater Speakers.

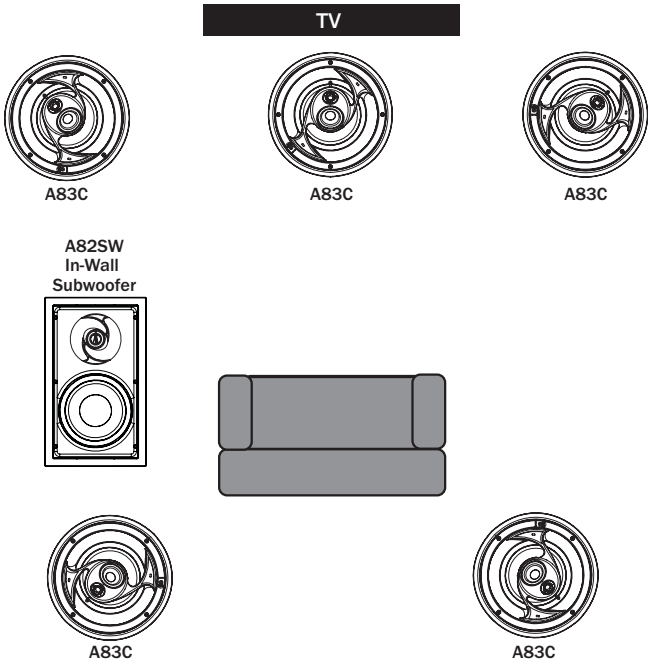

Figure 2.1: Home Theater - All Ceiling Application

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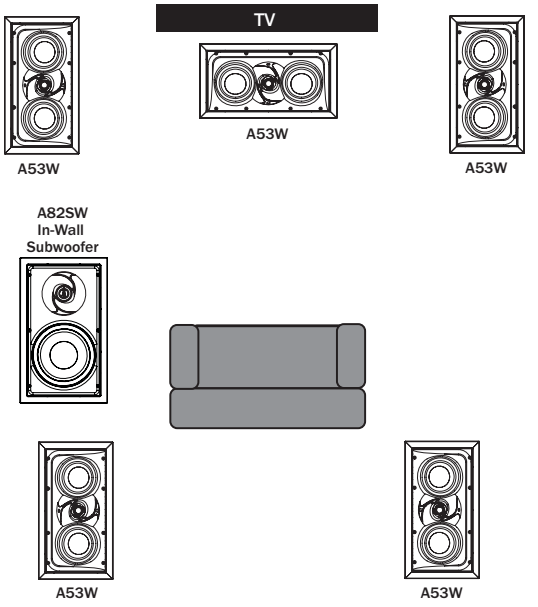

Figure 2.2: Home Theater - All In-Wall Application

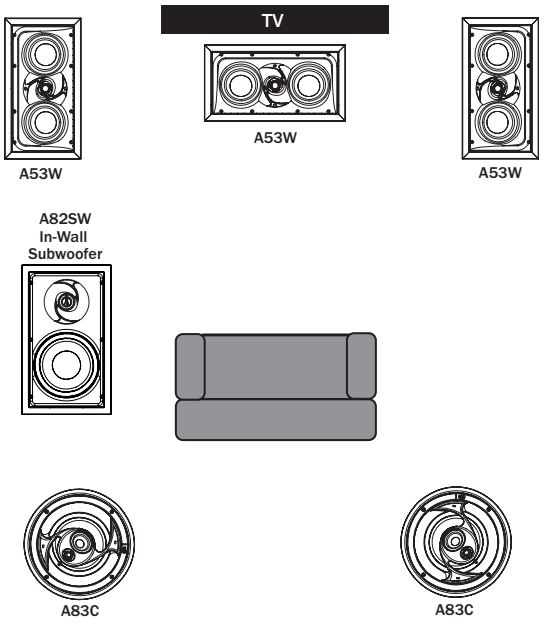

Figure 2.3: Home Theater - Ceiling/In-Wall Application

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Stereo/Critical Listening

In areas that have a defined listening area where two speakers will be mounted more or less equidistant from each other, use a stereo setup with left and right speakers each connected to their own channel of a stereo receiver or amplifier. This application provides the best sound quality, staging, and depth possible in areas with a defined listening position. ***Figure 2.4*** shows an example of a stereo listening area utilizing A83C Ceiling Speakers.

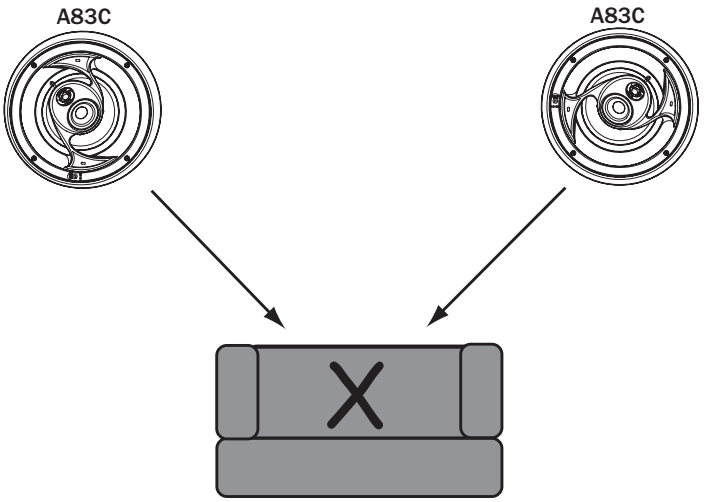

Figure 2.4: Stereo Application - A83C Ceiling Speakers

Figure 2.5 shows A53W In-Wall Speakers in a critical listening application.

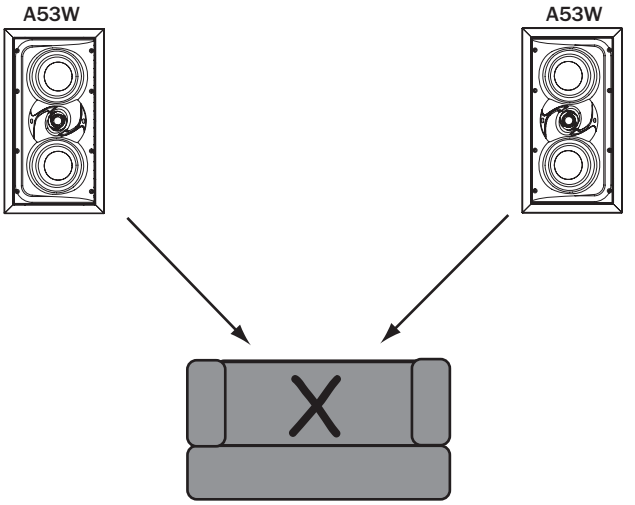

Figure 2.5: Stereo Application - In-Wall Speakers

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3. Installation

The Installation process is divided into three distinct processes: **Wiring**, **Mounting** and **Setting Switches**. After carefully considering the intended application (Defining a Listening Area, Stereo/Critcal Listening, Home Theater, etc.), specific mounting locations can be decided upon. Once the specific locations are determined, installation can commence.

Wiring

Before actually running any wire or cable, take the time to look around each room or area of the house and plan your wire paths for maximum efficiency. Look for routes through uncluttered parts of the stud wall or ceiling that allow you to group all low-voltage (video, speaker wires, Cat-5, telephone, etc.) wires wherever possible. It is a good practice to label both ends of all cables and to protect wires by tying a plastic bag over the ends.

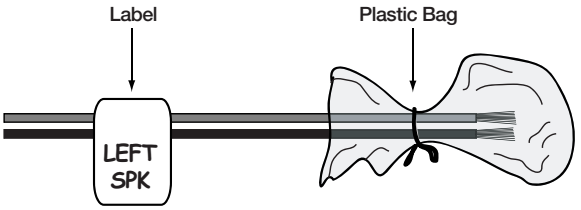

Figure 3.1: Wiring Label & Plastic Bag

Wiring Methodology

There are three common scenarios for connecting speaker to an audio system. ***Figure 3.2*** shows a home theater wiring scheme while ***Figures 3.3*** to ***3.5*** show stereo pairs.

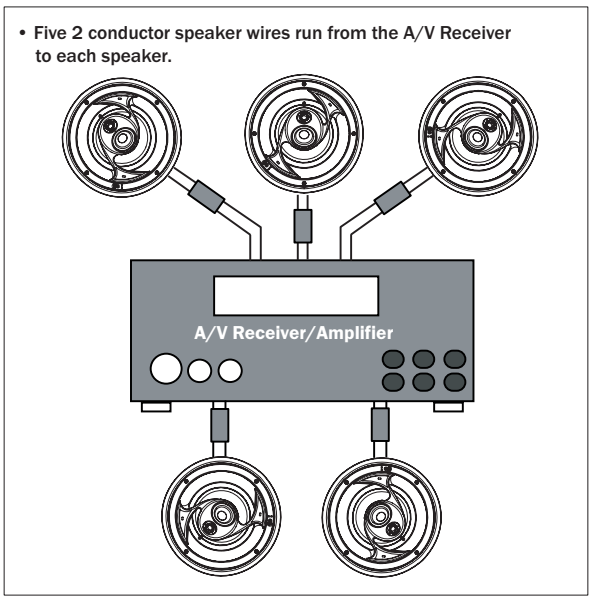

Figure 3.2: Wiring: Amplifier to Speakers - Home Theater

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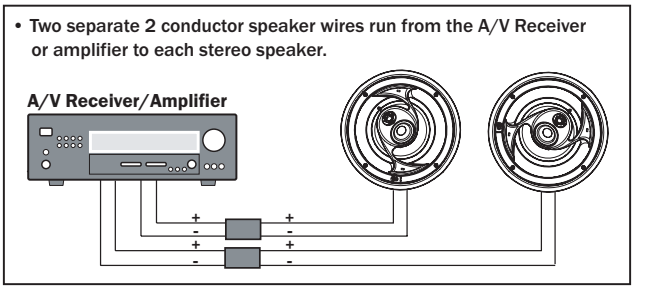

Figure 3.3: Wiring: Amplifier to Speakers - 2 Conductor Direct

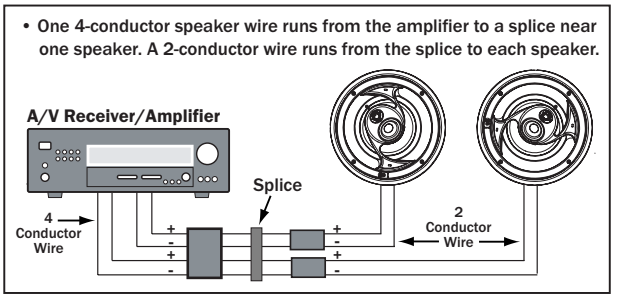

Figure 3.4: Wiring: Amplifier to Speakers - 4 Conductor to 2 Conductor

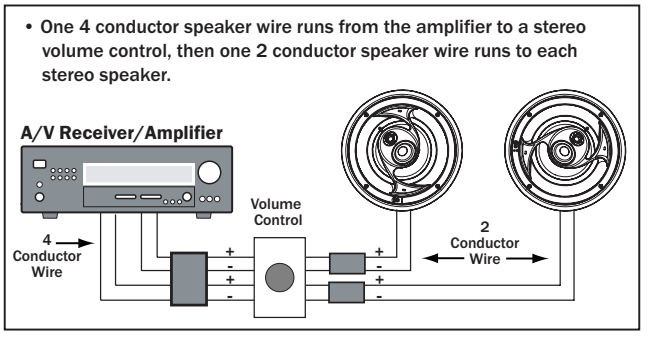

Figure 3.5: Wiring: Amplifier to Speakers w/ Volume Control

Note 1: Low voltage wiring must be run in accordance with the National Electrical Code as well as any other applicable provisions of the local building codes in your area. In some cases (such as commercial installations), running the wire in conduit may be required. If you have any questions concerning the wiring of speakers in your home, contact your local building and inspection department.

Note 2: It is recommended that you use quality CL-2 or CL-3 rated stranded speaker wire when installing ATON speakers. Solid-core "Romex" type wire is not acceptable! Use at least 16AWG speaker wire for runs up to 100 feet, and at least 14 AWG speaker wire for runs up to 200 feet. If you must cross high-voltage lines, always do so at a 90 degree angle to avoid audible hum through the speakers!.

Note 3: When pre-wiring for ceiling speakers, it is essential to make direct wire runs from the head-end to each speaker. Do not run speaker wires in series or parallel, and do not "daisy-chain" speakers to common wiring.

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Pre-Wiring

The audio/speaker cable runs should be routed from the head-end location to the speaker rough-in brackets (if used). At the speaker locations, securely fasten the speaker wire to the speaker rough-in bracket. If not using speaker rough-in brackets, staple speaker wire runs in a loose zigzag between the studs where the speaker is to be mounted to make it easier to find the cable after the drywall is installed. Zig-zagging the cable also allows flexibility in the placement of the speaker. ***Note: Do not run speaker wires closer than 12" from high voltage wires.***

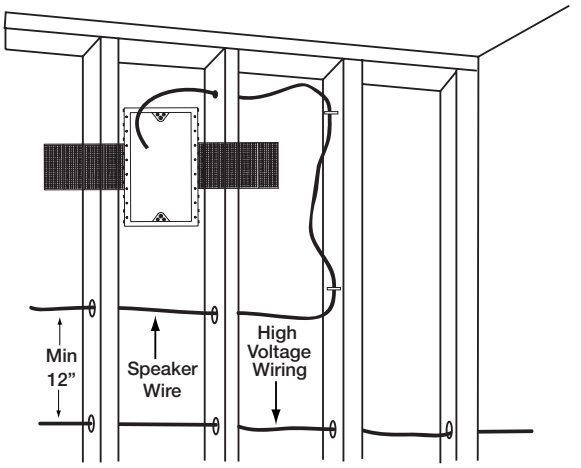

Figure 3.6: Pre-Wiring In-Wall

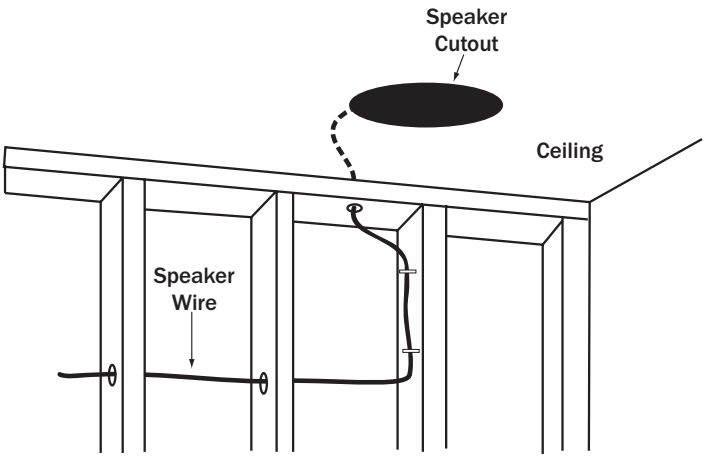

Figure 3.7: Pre-Wiring Ceiling

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Mounting

Two situations that can exist when mounting ceiling and in-wall speakers:

- **Pre-Construction -** Installations that occur in new homes being built and in remodel situations where walls and/or ceilings will be exposed.
- **Retro-Fit -** Installation that involve existing homes with walls and ceilings finished.

While the end result of either type of installation is similar, the process is quite different.

Pre-Construction

In a pre-construction installation, walls and ceilings are open with no drywall installed. This is desirable and allows the installer greater access than in retro-fit applications. ATON model **BK82C** Rough-In Brackets are specifically designed to work with A83C speakers while model **BK52W** Rough-In Brackets are designed to work with A53W speakers. Rough-in Brackets should be used whenever possible to reserve a neat hole in the drywall, ensuring proper speaker placement and making trim-out and final installation neat and organized.

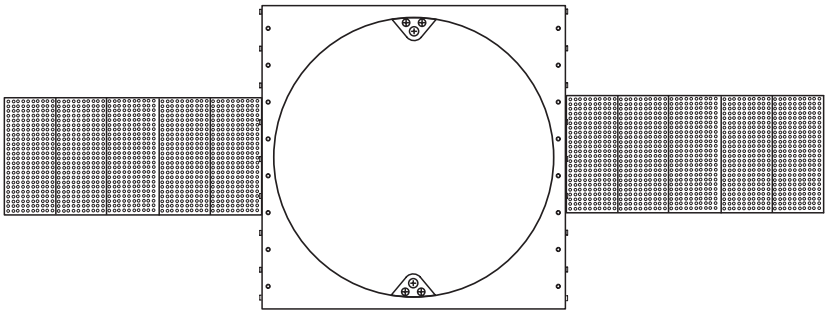

Figure 3.8: BK82C Rough-In Bracket

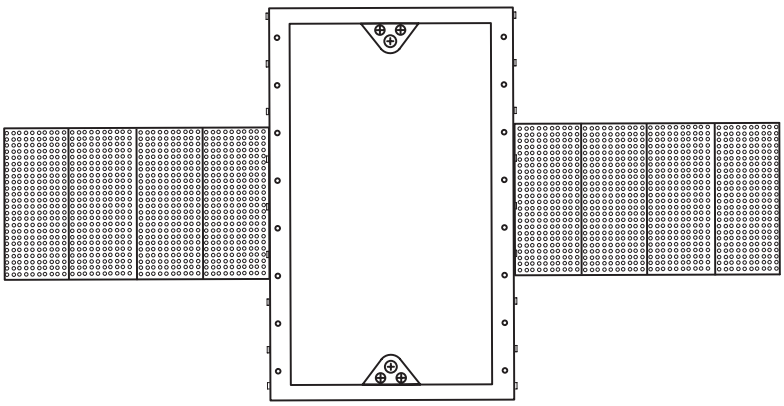

Figure 3.9: BK52W Rough-In Bracket

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Mounting Rough-In Brackets

Once the mounting locations are decided upon, assemble the brackets and secure them to the ceiling joists or wall studs using flat-head screws or heavy-duty staples (see the *ATON Ceiling/In-Wall Rough-In Brackets Manual* for detailed steps).

Retro-Fit

Retro-fit installations are more difficult to complete than pre-construction because walls and ceilings are intact. Typically wires must be fished into position through walls, floors and ceilings. Holes must be cut and speakers mounted directly in the ceiling or walls with no rough-in brackets.

Note: Before cutting holes in any existing wall or ceiling surface, probe the cavity behind each speaker's installation location for obstructions!

Cutting Speaker Openings in Ceiling or Wall - No Rough-in Brackets

1. Use a stud finder to locate the studs around the intended speaker location.

   Note: A stud-finding device may not detect pipes, wiring, or other obstructions located behind the drywall.

2. Use the inside portion of the speaker cutout template to confirm speaker placement.
3. Remove templates and drill or carefully punch a pilot hole in the ceiling or wall. A bent piece of wire or a coat hanger may be used to probe the stud bay for obstructions. If you experi ence resistance of any kind–STOP! If any obstructions are detected, patch the pilot hole and try again in another location.

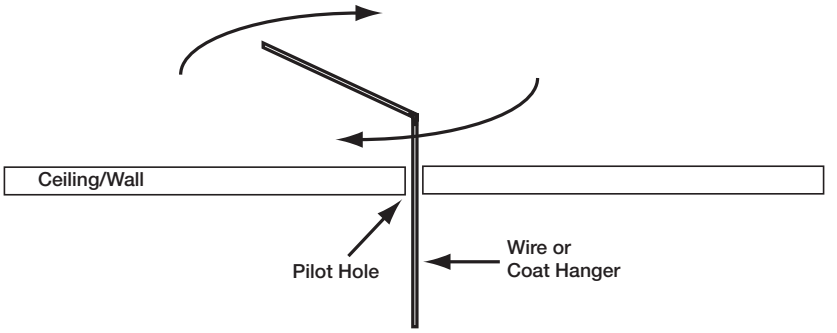

Figure 3.10: Probe Stud Bay Before Cutting!

4. Once it has been determined that the cavity is free from obstructions, position the cutout template and use a pencil to lightly trace the perimeter of the template.
5. Cut the opening using a keyhole saw, drywall router, or razor knife.

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Mounting Speakers in Ceiling (Pre-Construction or Retro-Fit)

1. Remove speaker grille and place speaker face down.
2. Locate the speaker wire and pull through the ceiling opening.
3. Connect the speaker wire. BE SURE TO OBSERVE CORRECT POLARITY!
4. Insert the speaker into the opening in the ceiling (or Rough-in Bracket opening) and *carefully* tighten each of the four clamping screws, alternating diagonally between each screw position to ensure proper fit.
5. Once the speaker is mounted in the ceiling, twist the baffle to aim the mid-range driver at the listening area. See ***Pointing the Mid-Range*** for details.
6. Aim the pivoting tweeter at the listening area.
7. Set the **Treble** and **Bass** switches. See ***Setting Switches*** for details.
8. Replace the speaker grille.

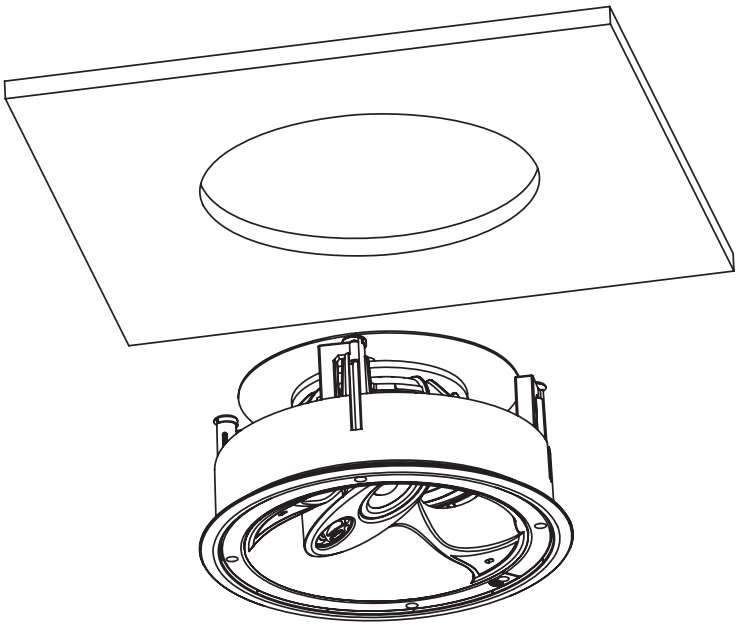

Figure 3.11: Mounting Speaker In Ceiling

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Pointing the Mid-Range

Once the audio system is connected and the speakers have been completely installed (with the grilles off), it is time to point the mid-range driver at the listening area.

1. Ensure that the LOCK screw located on the speaker baffle is loosened by turning it counter-clockwise. See ***Figure 3.12***.

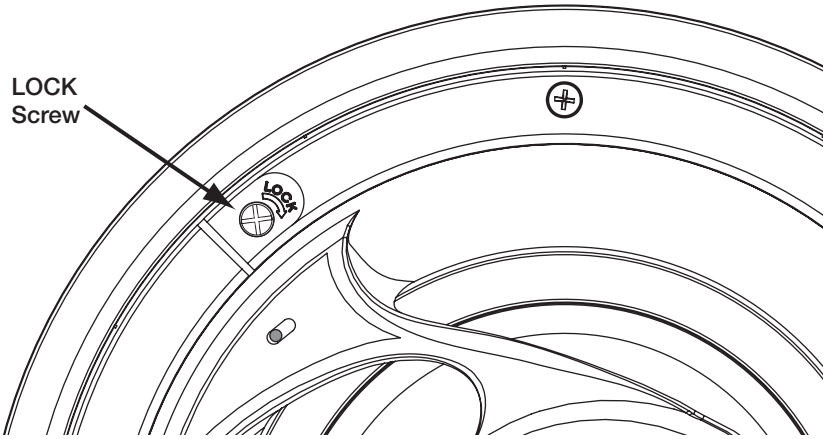

Figure 3.12: LOCK Screw

2. Twist the speaker baffle so that the angled mid-range driver is pointing in the desired direction. It may be easiest to utilize the bridge on which the mid-range and tweeter are mounted to physically turn the speaker.
3. Turn the LOCK screw clockwise to tighten the speaker baffle and lock it in place.

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Mounting Speakers in Wall (Pre-Construction or Retro-Fit)

1. Remove speaker grille and place speaker face down.
2. Locate the speaker wire and pull through the wall opening.
3. Connect the speaker wire. **BE SURE TO OBSERVE CORRECT POLARITY!**
4. Insert the speaker into the opening in the wall (or Rough-in Bracket opening) and *carefully* tighten each of the six clamping screws, alternating diagonally between each screw position to ensure proper fit.
5. Aim the pivoting tweeter at the listening area.
7. Set the **Treble** and **Bass** switches. See ***Setting Switches*** for details.
8. Replace the speaker grille.

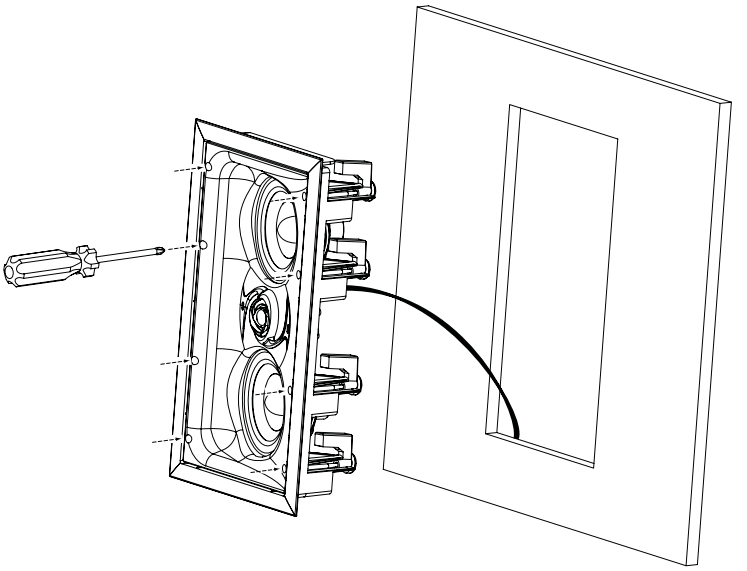

Figure 3.13: Mounting Speaker In Wall

Setting Switches

Once the speakers are wired, mounted, and positioned correctly, use the **Bass** and **Treble** switches to fine-tune the speakers based on local environmental variables such as hardwood floors, thick draperies, etc. Select the "**+**" position to increase Bass/Treble response or select the "**-**" position if no increase or decrease is desired.

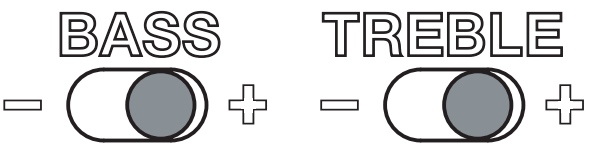

Figure 3.14: Bass & Treble Switches

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4. Specifications

A83C

System Type	3-Way Ceiling
Woofer	8" Woven Kevlar
Midrange	2.5" Woven Kevlar
Tweeter	3/4" Pivoting Titanium
Crossover	2nd Order Custom Q @ 250Hz & 3kHz
Switches	Treble/Bass
Impedance	6 Ohms
Sensitivity	92dB
Frequency Response	28Hz to 22kHz
Power Handling	175 Watts
Cutout Dimensions	11 1/4" (286mm)
Outer Frame Dimensions	12 1/8" (308mm)
Mounting Depth	6 1/16" (178mm)*
Pre-Construction Bracket	BK82C

* A83C requires a minimum ceiling joist height of 6 inches.

A53W

System Type	2-Way MTM Design In-Wall
Woofer	Dual 5 1/4" Woven Kevlar
Tweeter	1" Pivoting Titanium
Crossover	2nd Order Custom Q & Slope 2.4kHz
Switches	Treble/Bass
Impedance	6 Ohms
Sensitivity	88dB
Frequency Response	40Hz to 20kHz
Power Handling	150 Watts
Cutout Dimensions	7 1/4" x 14 3/8" (184mm x 365mm)
Outer Frame Dimensions	8 3/8" 15 7/16" (213mm x 392mm)
Mounting Depth	4" (102mm)*
Pre-Construction Bracket	BK52W

* A53W's depth is compatible with standard 2x4 walls.

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Notes:

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Limited Lifetime Warranty

ATON warrants to the purchaser/end user ("you") that all Storm Series Speakers are to be free from defects in materials and workmanship. This warranty is transferable to subsequent owners of the product as long as the original proof of purchase is retained. If you discover a defect in material or workmanship, you can obtain warranty service by contacting ATON at (859)-422-7137 or service@atonhome.com. If ATON determines that the product is in fact defective, ATON shall, at its option, repair or replace the product free of charge to you. This warranty shall not apply (a) to equipment not manufactured by ATON, (b) to equipment which was improperly installed, (c) which was repaired or altered by others than ATON, or its authorized representatives or subject to unauthorized tampering, alteration, or modification, (d) damaged due to misuse, negligence, accident, acts of God (including, but not limited to, excess moisture, insects, lightning, flood, electrical surge, tornado, earthquake, or other catastrophic events beyond ATON's control), or (e) subject to improper operation, maintenance or storage, or unreasonable use. The foregoing warranties do not cover reimbursement for labor, transportation, removal, installation or other expenses which may be incurred in connection with repair or replacement. The foregoing remedies shall be your exclusive remedies for any breach of warranty. Further, the foregoing warranty does not extend to equipment sold, but not manufactured by, ATON ("Third Party Products"). With respect to any Third Party Products, the warranty for such product shall be as provided by the manufacturer of such product, who will also be responsible for warranty service, and ATON will pass through to you any transferable warranty actually extended to ATON by the manufacturer.

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ATTENTION: TO OUR VALUED CONSUMERS
Valid proof of purchase is required for all warranty services. Warranty service requests made without proof of date of purchase will be denied. Please keep the original sales receipt for your records and send a copy to request warranty service. This warranty gives you specific legal rights, and you may also have other rights which vary state to state.
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